



Medical Research Council

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Dear Dr. Lederberg,

Thank you for your letter of November 5th. I enclose a copy of the article on XYY males which should appear shortly in the Journal of Medical Genetics. It was written about six months ago and is somewhat out of date. Since it was finished we have completed a survey which has involved all the Scottish prisons and all the Scottish penal institutions for juvenile delinquents (16-21 years) and we are more than half way through a study of all the Scottish approved schools (8-15 years). The upshot is that we can find no evidence for unusual numbers of XYY's in the prisons or among the juvenile delinquents, but the evidence so far is in the direction of some increased incidence among the approved school boys. These studies are additional to the original one of the State hospital in Scotland, which is a maximum security hospital with about 3 per cent XYY's, as is now known also to be so far the English special hospitals of Moss Side and Rampton although the data are not yet published.

There are quite a number of features that puzzle us. One is that the types of crime committed by the Scottish XYY's are trivial by comparison with those reported from abroad in which the accent is on violent assault. In Scotland the XYY tends to indulge in robbing gas meters, sending false alarms to the Fire Brigade and so on, and only occasionally does he indulge in personal assault. Another problem is that if the birth incidence is about 1 in 1000, and as far as we know current surveys suggest this, and if there are no selective mortality risks over XY's, then there ought to be about 1800 adult XYY's in Scotland. Every mental disease and mental subnormality hospital in Scotland, in the National Health Service, has been looked at as have all the penal groups, and the total yield is less than 5 per cent of those estimated to be in the population. We wonder very much about adverse selection through enhanced mortality risks and there are one or two possible leads. One is the suggestion of an enhanced risk of childhood infections and the other comes from the finding of quite unusual numbers of XYY and XXYY males but not XXY males having anomalies of cardiac conduction as shown by electrocardiography. The significance of these is at present unknown.

I also enclose the other paper you requested, which is for the January number of the British Medical Bulletin, half of which is to be biochemical genetics and the other half cytogenetics. I am to be in the States next March and I wondered whether there would be any chance of seeing you if I found my way to Stanford.

Yours sincerely,

W. M. Court Brown.